DEEPTI TEWARI

Email: tewarid@purdue.edu

Areas of Interest: Solid Mechanics, Modeling material behavior, Numerical computation in mechanics and material behavior modeling, Renewable energy, Energy transport, Advanced batteries

Skills

Teaching undergraduate and graduate courses including labs

Research Mechanics modeling using numerical computation packages ABAQUS, ANSYS, Monte Carlo and Kinetic Monte Carlo modeling techniques

Software ABAQUS, ANSYS, Fortran, C/C++, Matlab, Linux and Windows operating system

WORK Experience

Energy and Transport Sciences Lab, Department of Mechanical Engineering, Purdue University (Research Assistant, Aug 2017 - present)

- Morphology evolution of Li electrodeposition using Kinetic Monte Carlo modeling technique

Energy and Transport Sciences Lab, Department of Mechanical Engineering, Texas A&M University (Research Assistant, Jan 2017 – July2017)

- Interface behavior in silicon anode in high energy Li-ion batteri**es**

Mechanics and Materials Lab, Department of Mechanical Engineering, MIT (Research Assistant, 2005 – 2011)

- Role of secondary particles in shear localization of high strength steels
- Teaching Assistant and lab supervisor for undergraduate course Mechanics of Material II
- Teaching Assistant for graduate course Mechanics of Solid Materials

University of Illinois at Urbana Champaign, Department of Mechanical Engineering (2003 – 2005)

- Teaching assistant and lab supervisor for undergraduate course heat transfer (Spring 2005)
- Research Assistant, MEMS Lab. Analyzed the effect of substrate on thermoelastic damping

GE India Technology Center Pvt. Ltd., Bangalore, India (Mechanical Engineer, June 2002 – July 2003)

- Member of Edison Engineering Development Program, a technical development program at GE corporate R&D to expand technical knowledge in diverse fields and explore cutting edge technology.
- Part of structural design team. Won team award for design and analysis of C shaped X-Ray gantry

EDUCATION

Purdue University, West Lafayette, Indiana 2017
Ph.D. student in Department of Mechanical Engineering

Texas A&M University, College Station, Texas 2017-2017
Ph.D. student in Department of Mechanical Engineering **GPA: 4.0/4.0**

Massachusetts Institute of Technology, Cambridge, MA 2005 - 2011
Ph.D. Candidate in Department of Mechanical Engineering **GPA: 4.6/5.0**
Minor: Numerical Computation

University of Illinois at Urbana Champaign, Urbana Champaign, IL 2003 - 2005
Master of Science in Department of Mechanical Engineering **GPA: 3.88/4.0**

Indian Institute of Technology, Kanpur, India 1998 - 2002
B. Tech., Department of Mechanical Engineering **GPA: 9.2/10.0**

AWARDS AND ACHIEVEMENTS

- Graduate Student Council Representative for Green Hall Residence Hall at MIT (2005 – 2008)
- Team award for design and analysis of C shaped X-Ray gantry at GE India Tech. Center
- Certificate of Merit for academic excellence in undergraduate program in mechanical engineering (2000-2001)
- Ranked third in B.Tech. program in mechanical engineering at IIT Kanpur
- Best undergraduate mechanical project in course Introduction to Manufacturing Processes

PUBLICATION

The 3-D Computational Modeling of Shear-Dominated Ductile Failure in Steel, Vernerey, Franck J.; McVeigh, Cahal; Liu, Wing Kam; Moran, Brian; Tewari, Deepti; Parks, David M.; Olson, Gregory B., JOM, Volume 58, Number 12, December 2006 , pp. 45-51(7)

CONFERENCE PRESENTATION

Understanding Morphology Evolution in Lithium Electrodeposition, D. Tewari, Z. Liu and P.P. Mukherjee, 232 Meeting of Electrochemical Society, National Harbor, MD, 2017